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TITLE: Apparatus to identify and count biological  
microparticles

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ABSTRACT:

CHG DATE=19991102 STATUS=O>Apparatus to identify and count suspended biological microparticles, in a liquid sample, uses a sample where the microparticles are bonded to particles immunologically, pathalogically or microbiologically. The current flow from a metal coil gives them inductive changes which can be measured and they can be counted. The bonding particles, which can be changed by induction, are ferromagnetic and are held by an electromagnet (4) in a plastics capillary (3) before the metal coil current flow. The sample is passed through the capillary, where the biological microparticles bond with the ferromagnetic particles, and the liquid of the sample flows out of the capillary. The metal coil (5) is part of an electronic oscillation circuit. An Independent claim is included for an operation to give biologically activated ferromagnetic particles. Monovalent primary antibodies are mixed with ferromagnetic particles in a multiple surplus, which have been

coated with secondary antibodies. Using a centrifuge for partial sedimentation, particles are gathered and separated into particles of a monovalent primary antibody and ferromagnetic particles coated with antibodies. Preferred Features: Viruses can be used instead of the primary antibodies, with the secondary antibody directed against their protein shrouding.